City of Lafayette Water Works
Consumer Confidence Report
For 2009

Lafayette Water Works currently has two well fields, with 13 wells in service, all approximately 80 to 100' deep. The aquifer from which the water is pumped, is an enormous buried pre-glacial river valley, that was filled in with sand and gravel deposited by melting glaciers thousands of years ago. Water from rain and snow now percolates slowly through the ground to the aquifer, recharging it which keeps the net amount of available water fairly constant. As water travels through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances including contaminants. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

Government agencies involved in drinking water regulations include: U.S. Environmental Protection Agency (EPA), Indiana Department of Environmental Management (IDEM), and the Indiana State Department of Health (ISDH). Since 1974, drinking water regulations have become more stringent and numerous. Also testing methods have become more precise. (An example is it's now possible to detect a contaminant at levels of less than 1 part per billion) This is the same as one inch in 15,782 miles, one second in 31.7 years, and one cent in 10 million dollars.

To ensure that tap water provided by public water systems is safe to drink EPA determines what level of each potential contaminant poses a possible threat to human health and sets a limit, or *standard*. This standard is called the Maximum Contaminant Level (MCL), and is the highest level of a contaminant that is allowed in drinking water. Drinking water that meets this standard is associated with little or no risk to health. *Lafayette's drinking water meets or surpasses all these Federal and State standards.* **Detections of contaminants are listed in the following table. There were no violations of any MCLs or regulations.**

A Maximum Contaminant Level Goal (MCLG) is also set. This is the level of a contaminant in drinking water below, which there is no known or expected risk to health. This goal includes an adequate margin of safety. MCLGs are non-enforceable health goals; however, MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Contaminants that *could potentially* be present in source water (such as tap or bottled water) include:

A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

C) Pesticides and Herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can, come from gas stations, urban storm water runoff and septic systems.

E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791). Cryptosporidium is a microscopic organism found in surface waters such as rivers and lakes and is not normally associated with groundwater. Lafayette Water Works relies solely on groundwater wells as the source of drinking water; no surface water is used.

Treatment and Testing

Water goes through a treatment process via the addition of Chlorine and Ammonium Sulfate for disinfection, Fluoride to promote dental health, and Phosphate for two reasons: 1) to keep Iron and Manganese from precipitating out and staining fixtures and laundry, 2) help to prevent corrosion of lead and copper plumbing.

At a minimum, 4 times per day to insure water quality to consumers, Monochloramines, Fluoride and Phosphate levels are tested. Additionally, 60 or more water samples per month from several points around the City are tested for bacteria and correct chloramine levels. In all, Lafayette's water is tested for over 100 parameters several times each year. Parameters include minerals, treatment additives, chemicals, pH, bacteria and natural and man-made contaminants. Analyses are done at the Water Works lab and at independent State-certified labs. Any contaminants detected are listed in the following Table.

We encourage your interest and participation in our community's decisions affecting drinking water. The Board of Public Works and Safety meets every Tuesday at 9:00am in the Council Chambers at City Hall, and the public is invited.

You can contact the Lafayette Water Works at (765) 807-1700, 24 hours per day; however, your inquiries and requests for information can be handled most efficiently Monday - Friday, 8am to 4pm, when the complete staff is present. You can also call the EPA Safe Drinking Water Hotline at 800-426-4791 for more information.

This report was prepared by Lafayette Water Works Lab personnel with technical assistance provided by the American Water Works Association and Indiana Department of Environmental Management.

Thank you,
Kerry Smith
Water Works Superintendent

El informe contiene información importante sobre la calidad del agua en su comunidad. Tradúzcalo ó hable con alquien que lo entienda bien.

City of Lafayette Web Address: **www.lafayette.in.gov**

City of Lafayette Water Works

CCR Detections 2009

Definitions:

ppm = Parts per Million
ppb = Parts per Billion
ppt = Parts per Trillion

MCL = Maximum Contaminant Level Allowed
MCLG = Maximum Contaminant Level Goal

	90TH PERCENTILE LEVEL	UNITS	MAXIMUM LEVEL ALLOWED (AL)	MCLG	# of SAMPLES OVER "AL"	LIKELY SOURCES	Violation ?
Lead	**< 0.005**	**ppm**	**15**	**0**	**0**	**Plumbing**	**NO**
Copper	**0.79**	**ppm**	**1.3**	**1.3**	**0**	**Plumbing**	**NO**

AL = Action Level = The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
LEAD and COPPER do not exist naturally in Lafayette's water, but can leach into it by corrosion of plumbing. EPA requires periodic testing of water from 30 residences of which 90% must test at or below the regulated "Action Levels".

TTHM

CONTAMINANT	Annual Average	RANGE	UNITS	MCL	MCLG	LIKELY SOURCES	Violation ?
Total Trihalomethanes	**1.9**	**1.6-2.8**	**ppb**	**80**	**No MCLG**	**By-Product of Chlorination**	**NO**
Total HAA5	**0**	**0.0-0.0**	**ppb**	**60**	**No MCLG**		**NO**

Volatile Organic Compounds

No Detections			**ppm**		**0**	**Industries**	**NO**

Note**: 41 additional organics were tested for and not detected. < 0.5 = BDL**

Synthetic Organic Compounds

No Detections			**ppb**		**0**	**Farming Runoff**	**NO**

Note: **29 other SOCs are tested for, every three years and none are detected.**

Inorganic Compounds

CONTAMINANT	Highest Level Detected	RANGE	UNITS	MCL	MCLG	Possible Sources	Violation ?
Barium	**0.11**	**0.10 – 0.11**	**ppm**	**2**	**2**	**Erosion of natural deposits**	**NO**
Nickel	**0.0025**	**0.0021-0.0025**	**ppm**	**0.1**	**0.1**	**Mineral**	**NO**
Nitrate	**0.9**	**0.0-0.9**	**ppm**	**10**	**10**	**Fertilizer, Sewage**	**NO**
Sodium	**20.0**	**18.0 -20.0**	**ppm**	**No MCL**	**No MCLG**	**Naturally Occurring Mineral**	**NO**

Note: **Nine additional inorganic compounds were tested for and not detected**.

Radioactive Contaminants**

Alpha Activity	**3.1**	**1.4 – 3.1**	**pCi/L**	**5**	**0**	**Erosion of Natural Deposits**	**NO**
Beta Activity	**5.2**	**5.0 – 5.2**	**pCi/L**	**50**	**0**	**Decay of Natural and Man-Made Deposits**	**NO**

**Note: Results from 2002

Coliform Bacteria

	0	**60 per month**	**0**	**5.0% per Month**	**0**	**Naturally Occurring Bacteria , May Indicate Sanitation Problem**